

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/12680

A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl⁷ A61K38/17, 45/00, A61P9/00, 19/08, 25/00, 43/00, C12Q1/02,
G01N33/50, 33/15

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl⁷ A61K38/17, 45/00, A61P9/00, 19/08, 25/00, 43/00, C12Q1/02,
G01N33/50, 33/15

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
CAPLUS (STN), REGISTRY (STN), MEDLINE (STN), BIOSIS (STN)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 98/17794 A1 (Incyte Pharmaceuticals, Inc.), 30 April, 1998 (30.04.98), & JP 2002-500506 A & EP 937144 A1 & US 5728820 A	1-5
A	WO 01/85766 A1 (Innoventus Project AB.), 15 November, 2001 (15.11.01), & JP 2003-532402 A & EP 1305335 A2	1-5
A	WO 99/01152 A1 (THE GOVERNMENT OF THE UNITED STATES OF AMERICA, represented by THE SECRETARY, DEPARTMENT OF HEALTH AND HUMAN SERVICES), 14 January, 1999 (14.01.99), & US 6426070 B1	1-5

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document but published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 24 December, 2003 (24.12.03)	Date of mailing of the international search report 20 January, 2004 (20.01.04)
Name and mailing address of the ISA/ Japanese Patent Office	Authorized officer
Facsimile No.	Telephone No.

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C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 502718 A1 (Pioneer Hi-Bred International, Inc.), 09 September, 1992 (09.09.92), & JP 06-228190 A	1-5
A	JP 5-111382 A (Institute of Cytosignal Research, Inc.), 07 May, 1993 (07.05.93), (Family: none)	1-5
A	Hernnaes, Johan, et al., Eosinophil cationic protein alters proteoglycan metabolism in human lung fibroblast cultures, European Journal of Cell Biology, 1992, Vol.59, No.2, p. 352-63	1-5
A	Patella, Vincenzo et al., Eosinophil granule proteins are selective activators of human heart mast cells., International Archives of Allergy and Immunology, 1997, Vol.113(1-3), pages 200 to 202	1-5

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

The inventions according to claims 1 to 3 relate to a therapeutic composition for diseases caused by failures in the survival, proliferation and/or differentiation of cells which contains eosinophil cationic protein and a pharmaceutical component or a cell biological component or a medium composition for promoting the survival, proliferation and/or differentiation of cells. In contrast, the inventions according to claims 4 and 5 relate to a method of screening an active substance for a therapeutic composition for diseases caused by failures in the survival, proliferation and/or differentiation of cells which is a screening method characterized by comprising contacting candidate compounds with cells and (continued to extra sheet)

1. ☒ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.
☒ No protest accompanied the payment of additional search fees.

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(Continuation of Box No. II)

specifying as the target substance a substance capable of promoting cell survival and/or cell differentiation at a level comparable or superior to ETC.

Although the inventions according to claims 1 to 3 relate to a composition with the use of the physiological activities of the eosinophil cationic protein of promoting the survival and differentiation of animal cells, the inventions according to claims 4 and 5 relate to a method of screening an active substance in a therapeutic composition for diseases caused by failures in the proliferation and/or differentiation which comprises contacting cells with candidate compounds and, therefore, has no relevancy to the physiological activities of the eosinophil cationic protein of promoting the survival and differentiation of animal cells. Since there is no matter common to these groups of inventions seemingly being a special technical feature in the meaning within the second sentence in PCT Rule 13.2, no technical relevancy can be found between these groups of inventions different from each other in the meaning within PCT Rule 13.

Such being the case, it does not appear that there is a technical relationship between these groups of inventions involving one or more of the same or corresponding special technical features. Therefore, these two groups of inventions are not considered as relating to a group of inventions so linked as to form a single general inventive concept.